TECHNICAL ADVISORY GROUP ISSUE SUMMARY
FEDERAL MACT STANDARDS

Background

At the same time that the Wisconsin Department of Natural Resources is proposing mercury emission reduction rules, the USEPA is developing federal Maximum Achievable Control Technology (MACT) emission standards for coal and oil-fired electric utility steam generating units (power plants). It is anticipated that this MACT standard will apply to Wisconsin utility boilers affected by Wisconsin's proposed rules. Very shortly USEPA will also propose a MACT standard for industrial and commercial boilers. Both MACT standards are expected to have mercury emission reduction requirements.

Key Points

- MACT standards are usually based on implementing a technology or meeting an emission rate. This may result in compatibility issues with the annual mass emission requirement in the proposed rules.

- The level of reduction and the timing required by MACT and the proposed rules may require two different strategies. This has implications for control technology, planning and capital costs.

- MACT is based on control technology and reduction levels achieved for similar existing units. Since, there is currently no mercury reduction requirements for utility or industrial boilers in the U.S. the basis is then reductions associated with controls used for other pollutants and not those specifically targeted for mercury.

- The utility MACT floor for existing units would be the top 12% for each fuel and control device configuration based on sub-categorization, which may result in little additional control, or may range upwards to the mercury control level equivalent to a fabric filter by fuel type (sub-bituminous 76%, bituminous 98%). The approaches for various categorization levels are being actively evaluated in USEPA and stakeholder discussions.

- USEPA has indicated that the industrial boiler MACT will likely be based on fabric filter technology (no activated carbon injection). Therefore, units equipped with an electrostatic precipitator would likely need to pursue an injection technology or add-on a compact filter system.

- The utility and industrial boiler MACTs are on similar schedules with final compliance in the 2006 – 2007 timeframe. Final compliance is contingent on USEPA's success at resolving outstanding issues from public comments on the proposed rules. Lawsuits could further delay MACT implementation. If USEPA doesn't act timely and states must implement the MACT "Hammer" which would extend final compliance for both MACTs to the 2011 – 2012 timeframe.

- There is the potential, depending on the level of control, for a MACT standard to reduce the amount of emission credits available to trade under the proposed rules.

- There is the potential for a national multi-pollutant rule to subsume or eliminate the utility MACT requirement. In this case, the level of mercury reduction and the compliance schedule could be significantly different than that expected MACT based standard.